

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete If Known**

Application Number	
Filing Date	Herewith
First Named Inventor	Budach et al.
Art Unit	
Examiner Name	to be assigned

Attorney Docket Number 021430-000211US

**U.S. PATENT DOCUMENTS**

Examiner	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PJL	AA	US-4,810,658	03/07/1989	Shanks et al.	
PJL	AB	US-4,828,387	05/09/1989	Sawyers et al.	
PJL	AC	US-4,882,288	11/21/1989	North et al.	
PJL	AD	US-4,931,384	06/06/1990	Layton et al.	
PJL	AE	US-4,952,056	08/28/1990	Tiefenthaler	
PX	AF	US-4,978,503	12/18/1990	Shanks et al.	
PJL	AG	US-4,992,385	02/12/1991	Godfrey	
PJL	AH	US-5,006,716	04/09/1991	Hall	
PJL	AI	US-5,082,629	01/21/1992	Burgess et al.	
PJL	AJ	US-5,164,589	11/17/1992	Sjödin	
PJL	AK	US-5,186,897	02/16/1993	Eason et al.	
PJL	AL	US-5,192,502	03/09/1993	Attridge et al.	
PX	AM	US-5,208,111	05/04/1993	Decher et al.	
PJL	AN	US-5,242,828	09/07/1993	Bergström et al.	
PX	AO	US-5,294,402	03/15/1994	Schrepp et al.	
PJL	AP	US-5,312,729	05/17/1994	Allen et al.	
PX	AQ	US-5,374,563	12/20/1994	Maula	
PJL	AR	US-5,415,842	05/16/1995	Maula	
PJL	AS	US-5,434,663	06/18/1995	Maula	
PX	AT	US-5,438,161	06/25/1995	Bergström et al.	
PX	AU	US-5,455,178	10/03/1995	Fattinger	
PX	AV	US-5,468,620	11/21/1995	Molloy et al.	
PX	AW	US-5,478,756	12/26/1995	Gizeli et al.	
PX	AX	US-5,480,687	01/02/1996	Heming et al.	
PJL	AY	US-5,491,556	02/13/1996	Stewart et al.	
PJL	AZ	US-5,492,840	02/20/1996	Malmqvist et al.	
PJL	BA	US-5,532,170	07/02/1996	Buckle et al.	
PJL	BB	US-5,554,541	09/10/1996	Malmqvist et al.	
PJL	BC	US-5,831,734	05/20/1997	Stern et al.	
PJL	BD	US-5,841,640	06/24/1997	Hanning	
PJL	BE	US-5,663,790	09/02/1997	Ekström et al.	
PJL	BF	US-5,712,705	01/27/1998	Fattinger et al.	
PJL	BG	US-5,718,854	02/10/1998	Lofás et al.	
PX	BH	US-5,738,825	04/14/1998	Helmut Rudigier et al.	
PJL	BI	US-5,770,462	06/23/1998	Molloy	

Examiner Signature	PATRICK CONNOLY	Date Considered	05.11.2004
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## U.S. PATENT DOCUMENTS

Examiner	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PJL	BJ	US-5,779,978	07/14/1998	Hartmann et al.	_____
	BK	US-5,822,472	10/13/1998	Danielzik et al.	_____
	BL	US-5,830,766	11/03/1998	Attridge et al.	_____
	BM	US-5,846,843	12/08/1998	Simon	_____
	BN	US-5,874,219	02/23/1999	Rava et al.	_____
	BO	US-5,898,503	04/27/1999	Keller et al.	_____
	BP	US-5,912,456	06/15/1999	Melendez et al.	_____
	BQ	US-5,946,083	08/31/1999	Melendez et al.	_____
	BR	US-5,955,729	09/21/1999	Nelson et al.	_____
	BS	US-5,959,292	09/28/1999	Duveneck et al.	_____
	BT	US-5,965,456	10/12/1999	Malmqvist et al.	_____
	BU	US-5,972,612	10/26/1999	Malmqvist et al.	_____
	BV	US-5,981,956	11/09/1999	Stem	_____
	BW	US-6,078,705	06/20/2000	Neuschäfer et al.	_____
	BX	US-6,093,538	07/25/2000	Drake et al.	_____
	BY	US-6,111,248	08/29/2000	Melendez et al.	_____
	BZ	US-6,111,652	08/29/2000	Melendez et al.	_____
	CA	US-6,127,183	10/03/2000	Ivarsson et al.	_____
	CB	US-6,141,096	10/31/2000	Stem et al.	_____
	CC	US-6,143,574	11/07/2000	Karlsson et al.	_____
	CD	US-6,183,698	02/06/2001	Elkind et al.	_____
	CE	US-6,191,847	02/20/2001	Melendez et al.	_____
	CF	US-6,198,869	03/06/2001	Kraus et al.	_____
	CG	US-6,200,814	03/13/2001	Malmqvist et al.	_____
	CH	US-6,203,989	03/20/2001	Goldberg et al.	_____
	CI	US-6,207,381	03/27/2001	Larsson et al.	_____
	CJ	US-6,207,960	03/27/2001	Stem	_____
	CK	US-6,211,954	04/03/2001	Danielzik et al.	_____
	CL	US-6,218,194	04/14/2001	Lyndin et al.	_____
	CM	US-6,225,625	05/01/2001	Pimung et al.	_____
	CN	US-6,245,578	06/12/2001	Molloy	_____
	CO	US-6,252,236	06/26/2001	Trulson et al.	_____
	CP	US-6,289,144	09/11/2001	Neuschäfer et al.	_____
	CQ	US-6,289,286	09/11/2001	Andersson et al.	_____
PJC	CR	US-6,294,327	09/25/2001	Walton et al.	_____

Examiner Signature	PATRICK CONNOLY	Date Considered	05.16.2001
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## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
PL	CS	WO	97/29362	PCT	08/14/1997			
	CT	EPO	0 178 083		04/16/1986			
	CU	UK	2 227 089		07/18/1990			
	CV	UK	2 256 477		12/09/1992			
	CW	WO	90/03382	PCT	04/05/1990			
	CX	WO	91/16425	PCT	10/31/1991			
	CY	EPO	0 455 067	A2	11/06/1991			
	CZ	WO	92/10092	PCT	06/25/1992			
	DA	WO	95/33197	PCT	12/07/1995			
	DB	WO	96/26432	PCT	08/29/1996			
PL	DC	WO	96/35940	PCT	11/14/1996		SEE ENTIRE PDL	
	DD	WO	97/02357	PCT	01/23/1997			
	DE	WO	98/21571	PCT	05/22/1998			
	DF	WO	98/27430	PCT	06/25/1998			
	DG	WO	99/13320	PCT	03/18/1999			
	DH	WO	99/26059	PCT	05/27/1999			
	DI	WO	00/75644	A1	12/21/2000			
PL	DJ	WO	01/02839	A1	01/11/2001			

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PL	DK	Adlard, et al., The American Physical Society, Physical Review Letters, Vol. 79, No. 9, "Localization of One-Photon States," pp. 1585-1587, (1997)	
PL	DL	Pariaux, et al., Pure Appl. Opt. 5, Printed in the UK, "Coupling gratings as waveguide functional elements," pp. 453,469 (1996)	
PL	DM	Rosenblatt, et al., IEEE Journal of Quantum Electronics, Vol. 33, No. 11, "Resonant Grating Waveguide Structures," November, 1997	
PL	DN	Dolder, et al., Derwent Abstracts, 1991-339813 [46], "Method for the Light-Induced Immobilization of Biomolecules on Chemically "inert" Surfaces" (WO 91/16425 - 10/31/91)	

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PJC	DO	Sychugov, et al., Sensors and Actuators, B 38-39, "Waveguide Coupling Ratios for High-Sensitivity Biochemical Sensors," pp. 360-364 (1997)	
PJC	DP	Tyagi, et al., Nature Biotechnology, "Molecular Beacons: Probes that Fluoresce Upon Hybridization," Vol. 14, pp. 303-308 (March 1996)	
PJC	DQ	Wang, et al., Applied Optics, Vol. 32, No. 14, "Theory and Application of Guided-Mode Resonance Filters," (May 10, 1993)	
PJC	DR	Kogelnik, H., "Theory of Optical Waveguides," ed. Tamir, T., Guided-Wave Optoelectronics, pp. 7-88, Springer-Verlag: New York, (1988)	
PJC			

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